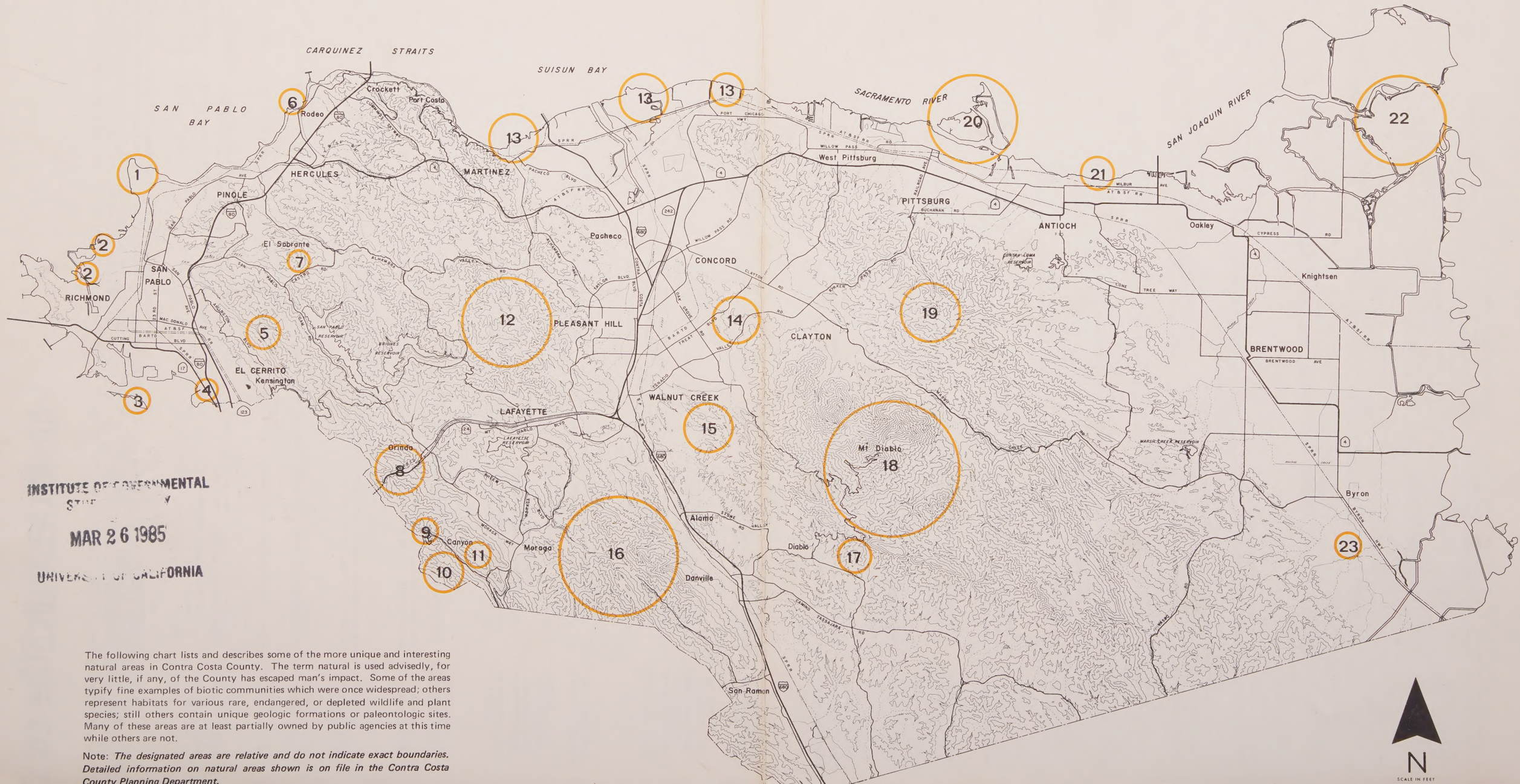
no.6
Feb. 1978

CONTRA COSTA COUNTY keynotes

AREAS OF NATURAL SIGNIFICANCE & UNIQUE WILDLIFE IN CONTRA COSTA COUNTY

Number 6 February 1978



INSTITUTE OF GOVERNMENTAL STUDIES
MAR 26 1985
UNIVERSITY OF CALIFORNIA

The following chart lists and describes some of the more unique and interesting natural areas in Contra Costa County. The term natural is used advisedly, for very little, if any, of the County has escaped man's impact. Some of the areas typify fine examples of biotic communities which were once widespread; others represent habitats for various rare, endangered, or depleted wildlife and plant species; still others contain unique geologic formations or paleontologic sites. Many of these areas are at least partially owned by public agencies at this time while others are not.

Note: *The designated areas are relative and do not indicate exact boundaries. Detailed information on natural areas shown is on file in the Contra Costa County Planning Department.*

Unique Wildlife of Contra Costa County

The chart below lists and describes some of the more unique wildlife species found in Contra Costa County. Most of the columns are self-explanatory. Abbreviations used under the status column are defined at the end of the chart. Those status designations that are not parenthetically referenced have been determined by the County Planning Department after extensive research and consultation with local experts. Species are arranged in taxonomic order as listed in the following references: Borror and DeLong, An Introduction to the Study of Insects; Stebbins, A Field Guide to Western Reptiles and Amphibians; Peterson, A Field Guide to Western Birds; Burt and Grossenheider, A Field Guide to the Mammals.

INSECTS

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
1. Shield-backed katydid	*Idiostatus middlekauffi*	Large grasshopper, produces loud "click" audible over long distances.	Specific information not available	End.	Known only from Antioch Sand Dunes	Limited to Antioch Sand Dunes.
2. Darkling beetle	*Coelus gracilis*	Tiny dark brown beetle.	Specific information not available.	End., may be extinct.	Known only from Antioch Sand Dunes.	Limited to Antioch Sand Dunes.
3. Antlike flower beetle	*Anthicus antiochensis*	1/10" - 1/5" long beetle, antlike in appearance.	Flowers and foliage	End., may be extinct.	Known only from Antioch Sand Dunes.	Antioch Sand Dunes, may be extinct.
4. Lange's metalmark	*Apodemia mormo langei*	Small and delicate gossamer-winged butterfly, mottled with orange, black and yellow.	Endangered plant of Antioch Sand Dunes (a buckwheat)	E (Fed.); End.	Originally from Antioch Sand Dunes and similar arid places in the Central Valley.	Limited to Antioch Sand Dunes.
5. Sand-loving wasp	*Eucerceris ruficeps*	Small dull colored wasp; nests in burrows in sand.	Spiders or small grasshoppers.	End.	Originally from Antioch Sand Dunes and similar arid places in the Central Valley.	Limited to Antioch Sand Dunes.
6. Bee-killer wasp	*Philanthus nasalis*	Medium sized wasp, black with yellow markings on abdomen, may burrow in sand.	Bees	End.	Known only from Antioch Sand Dunes.	Limited to Antioch Sand Dunes.

FISH

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
1. Thicktail chub	*Gila crassicauda*	Stocky chub with short cone-shaped head. Dusky above, silvery below.	No information available.	E (F. & G.); may be extinct.	Lowland waters of the Central Valley, Redding to Bakersfield.	Not collected since 1950 (Rio Vista). May be in Delta waters.
2. Sacramento perch	*Archoplites interruptus*	Sunfish with spines on back and under tail. Blackish above, silvery on sides and below.	No information available.	D (F. & G.)	Originally abundant in sloughs and and slow-moving channels of Central Valley, Clear Lake, and a few rivers.	A scarce species. May be in Delta waters.

AMPHIBIANS

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
1. California tiger salamander	*Ambystoma tigrinum californiense*	Large (3 - 6½"), stocky salamander with small eyes. Black above with yellow or cream spots.	Insects, insect larvae, worms.	SU (F. & G.); LD	Underground most of year, emerge with late fall-early spring rains. Central Valley and foothills.	Grassland and oak woodland near ephemeral ponds. Briones Hills and Mt. Diablo.
2. California red-legged frog	*Rana aurora draytoni*	Largest western native frog (5"). Brownish back with black splotches. Red lower abdomen and undersides of legs.	Insects.	SU (F. & G.); D (IUCN)	Secluded marshes, slow parts of streams and ponds in wooded areas in foothills or grasslands in coastal and Central Valley regions.	In a few areas of the County near quiet, secluded streams.

REPTILES

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
1. Western pond turtle	*Clemmys marmorata*	Aquatic turtle with dark back (carapace) and yellow belly (plastron) blotched with black.	Aquatic plants, insects, and carrion.	LD	Aquatic habitats west of Sierra-Cascade Ranges.	Near ponds, lakes and streams in limited areas of County.
2. Northern sagebrush lizard	*Sceloporus graciosus graciosus*	Resembles western fence lizard but is smaller.	Insect larvae, beetles, small insects, spiders.	LD	Open ground, scattered bushes in chaparral, forest and woodland. Much of western U. S.	Isolated population on Mt. Diablo; open, rocky ground.
3. Northern brown skink	*Eumeces gilberti placerencis*	Slim-bodied, olive or brown lizard with shiny scales. Young have bright blue tails.	Caterpillars, moths, beetles, Jerusalem crickets, grasshoppers.	LD	Grassland, woodland or forest near wet areas. Isolated areas in California.	In a few areas of the county near secluded streams.
4. California legless lizard	*Anniella pulchra pulchra*	Body slender, cylindrical, snake-like. About 8" long. Silvery to beige above, yellow below, black stripe on sides.	Small insects, insect larvae spiders.	E (IUCN); Proposed R (F. & G.)	Loose soils or sandy areas with plant cover, especially bush lupine. Disjunct populations from Antioch to Baja Calif.	Antioch Sand Dunes.
5. Alameda striped racer	*Masticophis lateralis euryxanthus*	Slender, fast-moving snake. Black or dark brown above, orange stripe on each side.	Amphibians, lizards, snakes, rodents, birds.	R (F. & G.)	Rock outcrops in chaparral, brush, and woodland in valley, foothills and low mountains in Alameda and Contra Costa Counties only.	Rocky areas, particularly Mt. Diablo and Berkeley Hills areas.
6. Giant garter snake	*Thamnophis couchi gigas*	Large garter snake (4½'). Dull brown with black checkered pattern on back. Dull yellow stripe on back.	Fish, toads, frogs, aquatic salamanders.	R (F. & G.)	Floor of Central Valley from Sacramento-Antioch to Buena Vista Lake; freshwater marsh.	Delta region in northeastern County.

BIRDS

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
1. White-tailed kite.	*Elanus leucurus*	Falcon-shaped. Nearly all white-gray with blacked-tipped wings.	Insects, reptiles, small mammals.	D, restricted to California.	Open foothills, river valleys, marshes. Originally ranged from west to gulf coast, now only in California.	Delta and lowland areas.
2. Golden eagle	*Aquila chrysaetos canadensis*	Large eagle (6 1/3 - 7 2/3' wing span). Mostly dark coloration when mature, some white when young.	Rabbits, large rodents.	LD	Open mountains, foothills, canyons, and plains throughout U.S. and Canada.	Hunt in many areas, nest in a few cliff areas and trees away from urban areas.
3. Prairie falcon	*Falco mexicanus*	Sandy colored falcon with black patches in wing "pits".	Insects, lizards, birds, rabbits, rodents.	LD	Canyons, open mountains, prairies, and deserts in western U. S.	Hunt in many areas, nest in secluded cliff areas.
4. California clapper rail	*Rallus longirostris obsoletus*	Large, hen-shaped rail. Gray-brown with tawny breast.	Aquatic plants, insects, frogs, crustaceans, mollusks, seeds.	E (Fed., F. & G.)	Coastal salt marshes of California.	Tidal marshes in southern San Pablo and Suisun Bays.
5. California black rail	*Laterallus jamaicensis coturnicalus*	Tiny slate-gray rail (young sparrow size). Black bill, chestnut nape, speckled back.	Aquatic plants, insects, frogs, crustaceans, mollusks, seeds.	R (F. & G.)	Tidal salt marshes, chiefly on the coast.	Not officially known to be in County, but very near; may be in Bay marshes.
6. Burrowing owl	*Speotyto canicularia hypugaeca*	Small brown owl with long, featherless legs, round head, stubby tail.	Insects, small mammals.	SU (F. & G.); LD	Open grasslands, prairies, dikes, deserts, and farms in western U.S.	Grassland in eastern part of County.

BIRDS (continued)

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
7. Grasshopper sparrow	*Ammodramus savannarum perpallidus*	Short-tailed sparrow with feeble flight. Buffy breast, striped back.	Seeds, insects.	SU	Grassland, hay meadows, prairies in many areas of the U.S.	May only be a migrant in grassland areas.
8. Black-chinned sparrow	*Spizella atrogularis caurina*	Streaked brown back, gray head and under parts, fleshed-colored bill, black chin patch.	Seeds, insects.	LD	Brushy mountain slopes, open chaparral and sagebrush in southwestern U. S.	Probably breeds locally on Mt. Diablo.
9. Suisun song sparrow	*Melospiza melodia maxillaris*	Brown sparrow. White breast with brown streaks.	Seeds, insects, small fruits.	End.	Tidal marshes of Suisun Bay.	Tidal marshes on south side of Suisun Bay and Carquinez Straits.
10. Samuel's song sparrow	*Melospiza melodia samuelis*	Same as Suisun song sparrow, but with olive back.	Seeds, insects, small fruits.	End.	Tidal marshes of north and south sides of San Pablo Bay.	Tidal marshes on south side of San Pablo Bay.

MAMMALS

Common Name	Scientific Name	Brief Physical Description	Foods Generally Taken	Status	General Habit and Distribution	Location in County
1. Ornate shrew	*Sorex ornatus californicus*	Grayish brown shrew, pale beneath.	Mostly insects.	LD	Along streams, wet meadows, brush-covered hills in central and southern California.	Several areas in County, particularly in salt marshes.
2. Suisun shrew	*Sorex sinuosus*	Nearly all black shrew, may be subspecies of *Sorex ornatus.*	Mostly insects.	End; T	Tidal marshes on Grizzly Island.	No official Contra Costa records, may be in marshes near Grizzly Island.
3. Ringtail	*Bassariscus astutus*	Long, slender, yellowish-gray body with long, striped tail. Relative of the raccoon.	Small rodents, birds, insects, fruits, lizards.	LD	Chaparral, rocks outcrops, cliffs near water. Southwestern U. S., California, and southern Oregon.	Secluded rocky and chaparral areas (Las Trampas, Briones).
4. River otter	*Lutra canadensis*	Large weasel-like animal (3' long). Rich brown above, silvery beneath.	Invertebrates, frogs, rabbits, small mammals, birds.	LD (if in Contra Costa County at all).	Scattered throughout U. S. and Canada on rivers, creeks, lake borders. May travel on land.	Recent F. and G. sitings in northern San Pablo and Suisun Bays. May be in southern bays, Delta region.
5. Badger	*Taxidea taxus*	Low, squat, racoon-sized mammal. Brownish gray above, bushy tail, black and white markings on head.	Chiefly rodents.	LD	Open grassland and deserts in western and central U. S.	Secluded grassland in various parts of the County.
6. San Joaquin kit fox	*Vulpes macrotis mutica*	Small tan-gray fox with very large ears, black-tipped tail, and long legs.	Insects, rodents, rabbits., Needs no drinking water.	R (F. & G.); E (Fed.)	Rangeland and non-agricultural grassland lowlands in San Joaquin Valley.	Grassland low hills in southeastern County. Northernmost range of fox.
7. Mountain lion	*Felis concolor*	Large tawny to grayish cat (80-200 lbs.). Dark brown on tip of tail, backs of ears, and sides of nose.	Mainly deer, also rabbits, rodents, occasionally domestic animals.	LD	Rugged mountains, chaparral, forests, and swamps throughout southern and and western U. S.	"Wilderness" areas (Briones Hills, Las Trampas, Mt. Diablo).
8. Bobcat	*Lynx rufus*	15 - 30 lb. cat with gray or reddish fur spotted with brown or black. Long legs, short black-tipped tail, and sharp-pointed ears.	Small rodents, brush rabbits, hares, some birds.	LD	Rock outcrops and chaparral in western U. S.; swamps and forests in eastern U. S.	"Wilderness" areas (Briones Hills Las Trampas, Mt. Diablo).
9. Berkeley kangaroo rat	*Dipodomys heermanni bekeleyensis*	Medium sized kangaroo rat. Brown back, white belly, white-tipped long tail.	Seeds, green vegetation.	End.	Dry, gravelly ground on slopes with sparse chaparral. Alameda and and Contra Costa Counties.	Berkeley Hills and Mt. Diablo. Not collected since 1936 in Contra Costa.
10. Suisun Bay salt marsh harvest mouse.	*Reithrodontomys raviventris haliocoetes*	Small brown mouse with dull brownish-yellow underside and long tail.	Salt marsh plant seeds, can drink salt water.	E (Fed., F. & G.); End.	Suisun Bay and northern San Pablo Bay marshes.	Marshes along northeastern edges of County.
11. San Pablo Bay salt marsh harvest mouse.	*Reithrodontomys raviventris raviventris*	Similar to Suisun Bay salt marsh harvest mouse.	Same as Suisun Bay mouse.	E (Fed., F. & G.); End.	Southern San Pablo and San Francisco Bay marshes.	Southern San Pablo Bay marshes.

D . . . . . .Depleted: significantly reduced in numbers in a certain area or over entire range.
E . . . . . .Endangered: continued existence is threatened by one or more conditions dealing with: high mortality rate; poor adaptation to environmental change; threatened habitat; predation, competition or disease (as defined by California Department of Fish and Game) OR = in danger of extinction throughout all or a signficant portion of its range (as generally defined by the Federal Endangered Species Act of 1973).
End. . . . .Endemic: natural occurrence is confined to a certain limited area or region.
LD . . . . .Locally depleted.
R . . . . . .Rare: continued existence is threatened by one or more conditions dealing with: confinement to specialized habitats and poor adaptation to changes in environmental conditions; scarcity; possibility of future endangerment; changes in current management and protection programs (as defined by California Department of Fish and Game).
SU . . . . .Status undetermined.
T . . . . . .Threatened: significantly reduced in numbers in a certain area or over entire range (as generally defined by the Federal Endangered Species Act of 1973).
(F. & G.) . .As designated by the California Department of Fish and Game.
(Fed.). . . .As designated by the federal government under the Endangered Species Act of 1973.
(IUCN) . . .As designated by the International Union for Conservation of Nature and Natural Resources.

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Areas of Natural Significance in Contra Costa County

1. Point Pinole

Tidal marsh, mudflat, grassland and plantation (eucalyptus) habitats. Valuable for migrating waterfowl and shorebirds. Habitat for endangered California clapper rail and salt marsh harvest mouse, possibly for black rail, and for the depleted Samuel's song sparrow and white-tailed kite. Plantation serves as resting place for migrating monarch butterflies.

2. San Pablo Creek and Wildcat Creek Marshes

Tidal marsh and mudflat habitats. Habitat for the same endangered and depleted species as at Point Pinole.

3. Brooks Island

Tidal marsh, scrub/brushland and native coastal prairie grassland habitats. Important stop for migrating waterfowl including Canada goose. Supports a population of California vole with a rare pelage (hair) color mutant.

4. Hoffman Marsh

Tidal marsh habitat for migrating waterfowl and shorebirds, possibly for endangered Califonia clapper rail and salt marsh harvest mouse.

5. Wildcat Creek Canyon

Riparian woodland habitat near urban area. Habitat for depleted ornate shrew, western pond turtle, northern brown skink and possibly for rare Alameda striped racer.

6. Lone Tree Point

Stratified cliff face demonstrates the underlying trend of coastal uplift.
Fossiliferous strata contain many marine-life fossils such as clams and oysters.

7. Sobrante Ridge Manzanita Grove

A unique "island" stand of chaparral that supports two and possibly three species of manzanita, one of which is rare (Alameda manzanita).

8. Siesta Valley

Broadleaf evergreen forest, riparian woodland, grassland and scrub/brushland habitats. Habitat for rare Alameda striped racer and depleted Berkeley kangaroo rat, northern brown skink, grasshopper sparrow and ornate shrew.
Easily observed geologic features include a faulted syncline with Siesta Formation outcropping in the fold and Moraga basalt forming the upper slopes of the valley.
Some fossil shells and land mammals.

9. Huckleberry Botanic Preserve

Extraordinarily rich habitats of chaparral and broadleaf evergreen forest. Supports rare and/or endangered Alameda manzanita and leatherwood and diverse avifauna.

10. Redwood Forest

Fine example of coast redwood forest. Redwoods were extensively logged in the late 1800's; all existing trees are second growth.

11. Flicker Ridge

Concentration of many habitats: grassland, native grassland, scrub/brushland, chaparral, open oak woodland, broadleaf evergreen forest, knobcone pine forest and agriculture. Includes patches of unique pigmy redwoods, stunted due largely to exposure and soil conditions.

12. Briones Hills

Large areas of diverse habitats. Supports rare, endangered or depleted California tiger salamander, western pond turtle, northern brown skink, ornate shrew, prairie falcon, mountain lion and possibly Alameda striped racer, grasshopper sparrow, golden eagle, badger, ringtail and bobcat. One rare plant, Mt. Diablo fairy lantern, is known to occur here, and another, Diablo helianthella, is suspected to occur.

13. Martinez Waterfront and Concord Naval Weapons Station

Tidal marsh habitat. Supports rare salt marsh harvest mouse, California clapper rail and possibly black rail. The depleted ornate shrew, white-tailed kite and Suisun song sparrow also occur here.

14. Lime Ridge

Supports the endangered plant, Mt. Diablo manzanita, and a buckwheat subspecies which occurs only on Lime Ridge.

15. Shell Ridge

Open oak woodland and grassland habitats.
Upturned geologic strata contain many marine fossils.

16. Las Trampas and Rocky Ridges

Large "wilderness" area of rugged terrain, high ridges and steep slopes. Varied habitats include grassland, scrub/brushland, chaparral, rock outcrops, open oak woodland, broadleaf evergreen forest, and riparian woodland. Habitat for rare, endangered or depleted Alameda striped racer, black-chinned sparrow, prairie falcon, golden eagle, ringtail, badger, bobcat and mountain lion.

17. Blackhawk Ranch Fossil Locality

Upturned fossiliferous Pliocene strata indicates past climate, flora and fauna. Diverse fossils include those of streamside trees, marine invertebrates, lizards, cranes, small mammals, carnivores, peccaries, camels, horses and mastodons. Site was the edge of a salt water basin that extended inland to the Sierra Nevada.

18. Mt. Diablo

Diverse habitats including the native grassland, serpentine chaparral, large rock outcrops, riparian woodland, dwarfed woodland, Coulter pine forest, knobcone pine forest, and springs. At least thirteen rare and/or endangered plants and many rare, endangered or depleted animals, including an isoalated population of northern sagebrush lizard, inhabit the mountain.

19. Nortonville-Somersville

Northernmost limit of Coulter pine and black sage, southernmost limit of common manzanita. Three rare and/or endangered plants occur here (Mt. Diablo manzanita, Diablo helianthella and Brewer dwarf flax). Habitats include grassland, chaparral, open oak woodland and Coulter pine forest. Area has been heavily mined for coal.

20. Browns Island-Winter Island

Excellent example of estuarine habitat. Significant freshwater marsh areas with a mixture of fresh and salt waters. Habitat for depleted Suisun song sparrow, white-tailed kite and possibly river otter. Rare black rail might also occur here.

21. Antioch Sand Dunes

Small and only remaining remnants of riverine dunes, once part of the largest river-laid dunes in the state that streched ten miles along the southern shore of the San Joaquin River. The remaining threatened dunes support three rare and/or endangered plants, at least six endangered or endemic insects and the endangered California legless lizard.

22. Franks Tract

A flooded, formerly levee-encircled delta island. Freshwater marsh and riparian woodland habitats on borders, delta aquatic habitat within a good spawning area for fish (striped bass, largemouth bass, white catfish, others). Possible habitat for the rare giant garter snake.

23. Byron Hot Springs

Alkali mud flats, salt marsh and hot mineral springs. A rare snail (Helminthoglypta contra costae) inhabits the area. The site of an old resort-spa now in disrepair. A recently created shallow lake has enhanced the habitat for wildlife. The grassland hills to the west support the rare and endangered San Joaquin kit fox.

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21. Antioch Sand Dunes	Small and only remaining remnants of riverine dunes, once part of the largest river-laid dunes in the state that streched ten miles along the southern shore of the San Joaquin River. The remaining threatened dunes support three rare and/or endangered plants, at least six endangered or endemic insects and the endangered California legless lizard.
22. Franks Tract	A flooded, formerly levee-encircled delta island. Freshwater marsh and riparian woodland habitats on borders, delta aquatic habitat within a good spawning area for fish (striped bass, largemouth bass, white catfish, others). Possible habitat for the rare giant garter snake.
23. Byron Hot Springs	Alkali mud flats, salt marsh and hot mineral springs. A rare snail (Helminthoglypta contra costae) inhabits the area. The site of an old resort-spa now in disrepair. A recently created shallow lake has enhanced the habitat for wildlife. The grassland hills to the west support the rare and endangered San Joaquin kit fox.

References

1. Armstrong, Dean and Barbara Kautz, 1973, Environmental Analysis of Western Contra Costa County; Tri-Cities Seismic Safety and Environmental Resources Study. Cities of El Cerrito, Richmond and San Pablo.
2. Hood, Leslie, ed., 1975, Inventory of California Natural Areas. California Natural Areas Coordinating Council, Sonoma.

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